

In the Claims:

Please cancel claims 8-51 without prejudice or disclaimer as to the subject matter thereof.

1. (currently amended) A cardiac pacing system for delivering electrical stimulation to at least three chambers of a heart, said at least three chambers including a left ventricular chamber and a right ventricular chamber wherein the left ventricular chamber and the right ventricular chamber do not synchronously contract, comprising:

a timing circuit to measure at least one time interval, the at least one time interval operatively coupled to control delivery of an electrical stimulation therapy to at least one of a left ventricular chamber and a right ventricular chamber by a cardiac pacing system;

a sensing circuit to measure a duration of a QRS complex of only a last-to-depolarize ventricular chamber of the heart; and

a control circuit coupled to the timing circuit and the sensing circuit to adjust the length of the at least one time interval based on the measured duration of the QRS complex of the last-to-depolarize ventricular chamber of the heart.

2. (currently amended) A system according to claim 1, wherein the sensing circuit includes a circuit to sense a depolarization in a selected one of the left or right atria of the heart, and wherein the at least one time interval further comprises an sensed A-V (SAV) delay initiated upon sensing of the depolarization, and further comprising:

an output circuit coupled to the timing circuit to:

a) deliver a first ventricular pacing pulse to a first ventricular site disposed in a first ventricular chamber upon expiration of the SAV delay and a second ventricular pacing pulse to a second ventricular site disposed in a second ventricular chamber, wherein said second ventricular pacing pulse is delivered after a temporal interval following delivery of said first ventricular pacing pulse, or

b) upon detecting a ventricular depolarization in said first ventricular chamber prior to expiration of the SAV delay, withholding delivery of the first ventricular pacing

pulse and delivering the second ventricular pacing pulse after a temporal interval following detection of said ventricular depolarization, or

c) upon detecting a ventricular depolarization in said second ventricular chamber prior to expiration of the SAV delay, withholding delivery of the second ventricular pacing pulse and delivering the first ventricular pacing pulse after a temporal interval following detection of said ventricular depolarization.

3. (currently amended) A system according to claim 2, wherein the output circuit includes a circuit to deliver an atrial pacing pulse to the selected one of the left or right atria of the heart upon expiration of a V-A escape interval, and wherein the at least one time interval includes a paced A-V (PAV) delay initiated upon delivery of the atrial pacing pulse, and wherein the output circuit further comprises a circuit to deliver the first ventricular pacing pulse to the first ventricular site upon expiration of the PAV delay.

4. (currently amended) A system according to claim 2, wherein the temporal interval comprises a bi-ventricular delay-.

5. (previously presented) A system according to claim 4, wherein the first ventricular chamber is a location within the right ventricle of the heart and the second ventricular chamber is a location within the left ventricle of the heart.

6. (previously presented) A system according to claim 4, wherein the first ventricular chamber is a location within the left ventricle of the heart and the second ventricular chamber is a location within the right ventricle of the heart.

7. (previously presented) A system according to claim 4, wherein the output circuit includes a circuit to deliver a pacing pulse to the other one of the left or right atria of the heart.

8. - 51. (canceled)